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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,233	03/30/2001	David Wesley Cronk	1002-002US01	6321

28863 7590 10/24/2005  
SHUMAKER & SIEFFERT, P. A.  
8425 SEASONS PARKWAY  
SUITE 105  
ST. PAUL, MN 55125

EXAMINER

BAYERL, RAYMOND J

ART UNIT PAPER NUMBER

2173

DATE MAILED: 10/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/823,233

Applicant(s)

CRONK, DAVID WESLEY

Examiner

Raymond J. Bayerl

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 - 18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 4, 6 - 12, 14 - 18 is/are rejected.
- 7) ☒ Claim(s) 5 and 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 7, 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In deleting the reference to "individual members and dimensions" in the 10 August 2005 amendment to claim 6, applicant has removed the clear antecedent basis that was originally provided for claim 7's "the individual members" (lines 1 – 2).

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1 – 4, 9 – 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bakalash et al. ("Bakalash"; US #6,385,604 B1) in view of Joseph et al. ("Joseph"; US #5,826,010) and Beall et al. ("Beall"; US #6,169,992 B1).

As per independent claim 1's "method" for gaining access to "members of a data cube" (and also independent claim 9's "computer-readable medium" having similar function), Bakalash, in interfacing a NON-RELATIONAL MULTI-DIMENSIONAL DATA STORE to the user via a RELATIONAL DATABASE teach applicant's "data cube" as the multi-dimensional data structure (MDD) (Abstract). Fig 6B actually illustrates the MDDB as a "cube". At fig 7B, Queries and Data are passed to the MDD, within an OS and Hardware Platform, and figs 9A – 10B show a traversal of the individual dimensions. It is significant to note that Bakalash's atomic data may refer to information by store, by day, and by item, in the example of a retail merchandising manager who

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needs access to the MDDDB (see col 10, lines 34 – 46). This suggests providing access to the claimed “transactional data from which the data cube was derived”, where a Balkash user could drill down among the dimensions to the level of individual transactions, if the case need arise; the problem solved is that of the sharing of data with external parties such as suppliers, customers and investors (col 1, lines 32 – 43).

While the kinds of enterprise data a Bakalash user might peruse are limited to what the enterprise supports within the MDDDB “cube”, Bakalash contains no **explicit** teaching of “setting access rights to members of a data cube” and its “transactional data”, though a generalized “user interface” for Bakalash’s Queries is certainly suggested, in making the system useful to the end users.

However, Joseph specifically provides for PREDEFINED ACCESS RIGHTS FOR UNDEFINED ATTRIBUTES, where access protections relating to different categories of users and different types of access (Abstract) can be established. Joseph can give administrators and developers convenient flexibility in associating access protections (col 2, lines 60 – 65). This allows a range of attribute numbers to have access protections on the basis of user identity (col 4, lines 56 – 67).

Thus, it would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to limit the “access rights” of a Bakalash “data cube”, using the concept of attribute-specific permissions taught by Joseph, so that the Bakalash end users will be assuredly given the interface they need and one which is properly restricted. Motivation lies in Bakalash, where various portions of the enterprise

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need different views upon the MDDB, and thus would benefit from per-“user” designations such as those provided in Joseph’s TABLE I (col 4).

While a brief sentence in Bakalash states that a user interacts with a client machine (for example, using a web-enabled browser) to generate a natural language query (col 11, lines 53 – 62), there is no **explicit** teaching of “formatting a web page based on the set access rights”, for communication “to a client device”.

However, Beall’s SEARCH ENGINE FOR REMOTE ACCESS TO DATABASE MANAGEMENT SYSTEMS has ample disclosure of handling queries via the Internet, and with a Web browser (5120) having a Java™ runtime environment (Abstract). Please note the use of a Netscape browser, with URLs, in Beall’s figs 36 – 41. The present invention provides engineers and designers with the possibility that they can get direct access to their key supplier’s data on-line, via the Internet (Beall, col 3, lines 42 – 48).

Thus, it would have been further obvious to the person having ordinary skill that an access interface to a “data cube” as per Bakalash that is restricted on the basis of “access rights” as per Joseph should then present “a web page” for the access, as per Beall, so as to increase the user-flexibility in obtaining relevant information through the on-line environment. Motivation lies in Bakalash’s description of the enterprise scenario, in which suppliers, customers and inventors are typically distributed throughout many locations, and would benefit from a system that resides on the public-switched IP network.

As per the “dimensional hierarchy for the data cube” (claims 2, 10), please note, as in the previous discussion, that the Bakalash MDDDB is selectively traversed according to dimensions, as in figs 9A – 10B. Dimensions are also seen in Beall, as in the Attribute selection enabled in fig 19. What results in the Beall interface is essentially “an electronic report” along the lines of the dimensions, and with Joseph, “input granting the user access to a subset” is then suggested as obvious, in the Bakalash enterprise.

As per claim 3 (see also claim 11), in producing an output report of searched-for information (such as the ultimate “transactional data”, as in Bakalash), “displaying data fields” is a part of the generation of column headings, as in Beall’s fig 38. With Joseph added to such a combination, the “input granting the user access to a subset” is then provided for as obvious; someone has to establish the access rights in Joseph.

The “web page by which the user can compose an electronic report” (claim 4) is suggested by the Web browser output shown in Beall, as discussed above. A presentation of “members of the data cube” in such a “report” follows from Joseph’s modification of the Bakalash MDDDB to have “set access rights”. Bakalash also suggests that a “report” should allow access to “transactional data to which the user has access”, as has been noted above in combination with Joseph.

5. Claims 6, 17 - 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bakalash in view of Joseph.

As per independent claim 6’s “method” (and also independent claim 17’s “computer-readable medium”), the use of “a data cube having multidimensional data derived from transactional data” is suggested by Bakalash, as noted above, while

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“controlling access to the multidimensional data” is to be seen in Joseph’s assignment of ACCESS RIGHTS FOR UNDEFINED ATTRIBUTES. As stated above with respect to claim 1, it would have been obvious for a “first user” to restrict access as per Joseph to the “transactional data” in Bakalash, so as to aid the Bakalash enterprise in providing appropriate interfaces for its assorted individual end users.

Claim 18’s concentration upon “a set of groups”, “wherein each group relates to at least one of the user identifiers” is something seen in Joseph, where users are assigned within categories, according to their privilege within the system (see again TABLE I; col 5, lines 12 – 23).

6. Claims 7, 12, 14 – 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bakalash in view of Joseph and Beall.

Claim 7’s “presenting an interactive environment for creating an electronic report” reads upon Beall’s use of a Web browser to query and view database contents according to certain parameters. When user access is restricted as per Joseph, the “author” can “include only multidimensional data to which the author has access”. A similar line of reasoning applies to claims 12, 15.

Independent claim 14’s “system”, which operates upon “multidimensional data and transactional data”, accepts user input via “a user interface for setting access rights”, with the “data” source reading upon Bakalash, the “access rights” upon Joseph, and the “server”-originated “user interface” upon Beall, for reasons similar to those developed above. In Beall, a “page generation module” then presents “a web page”

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with the search results (as in Beall), but limited on the basis of “the set access rights” (Joseph).

Claim 16’s production of an “electronic report”, which is at least suggested by the parameterized URLs of Beall, will result in a receiving user (who has invoked the URL) having the potential of viewing “transactional data” that might appear in a “range” of the “multidimensional data” as per Bakalash. With the addition of Joseph’s assignment of ACCESS RIGHTS, that user would only be able to view that for which “a user viewing the electronic report has access”.

7. Applicant’s arguments filed 10 August 2005 have been fully considered but they are not persuasive.

Applicant has mis-interpreted the Examiner’s position in the first Office Action, when at page 12 appears the statement “As recognized by the Examiner, Bakalash, is not at all concerned with setting of access rights at all, let alone to both a multidimensional datacube and to the transactional data from which the datacube was derived” and at page 13 that Bakalash “fails to describe a user interface for setting access rights at all let alone controlling access to both multidimensional data and the transactional data from which it was derived”. The Examiner had merely recognized a deficiency of explicit teachings of access **right** establishment *per se* in Bakalash, while Bakalash **does** provide for user access both to a “data cube” and its underlying “transactional data”. The Bakalash interface gives an example of a retail merchandising manager who can access records relating to suppliers and customers, as noted above.



Further on page 13, applicant asserts that “The Examiner fails to appreciate that multidimensional data structures are typically separate, distinct structures from relational databases”, and that “a linkage from one database to another cannot be presumed, as does the Examiner”. However, in considering the overall function and scope of the Bakalash system, the Examiner still deems that individual transactions and overall “data cube” results are the access objective in Bakalash, and should properly be given concurrent accessibility, provided the user has the right as per Joseph. Thus, and contrary to applicant’s page 13 – 14 argument that “Bakalash and Joseph fail to describe any access control technique that addresses the relationship between the fields of the transactional data and the members of the multidimensional data and the difficulties in providing fine-grain access control between these separate systems”, the Examiner is in fact faced with a claim that merely permits “access right” assignment to the two forms of data and provides them in a single arrangement for retrieval, without requiring any more in the way of “control between” them than that they can both appear in the end-user display, something suggested by Bakalash.

Specifically concerning Joseph, applicant argues at page 14 that “The ‘attributes’ described by Joseph relate to different objects of within [sic] a network (e.g., users or printers), but fail to describe techniques for controlling access between members of multidimensional data and fields of transactional data from which the members were derived”. However, sufficient “substantial evidence in the record” exists in Joseph’s access right assignment within a data-retrieving arrangement to suggest that users should be granted or denied access in a similar way, with the “multidimensional” and

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“transactional data” of Bakalash. Simply stated, access control such as Joseph’s was widespread in its application in the art, and does not represent a non-obvious extension of Bakalash.

At pages 14 – 15, applicant addresses the rejections of a number of claims by providing relatively-blank statements that “none of the references, either singularly or in combination, teach or suggest...”, followed by claim details. Such statements, which do not further treat the teachings and suggestions that are in fact present in the relied-upon references, do not merit further explanation beyond that given immediately above.

8. Claims 5, 8, 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Also please note that the rejection of claim 8 under 35 USC 112, second paragraph that is stated above must be overcome.

While an “electronic report” *per se* such as that in claim 5 can be generated, whenever the Bakalash user accesses the “multidimensional” and “transactional data”, neither this reference nor the remaining prior art of record goes to the point of then including “an icon for viewing the accessible transactional data from which the members of data cube accessible by the user were derived”. Such a claim places a significant interface framework in place, beyond simply calling forth the “data” in a “web page” interface, as in parent claim 4. Additionally distinguishing in claim 5 is the matter of actually “publishing the electronic report”, not seen in mere access interfaces such as Bakalash or Beall.

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Similarly, "publishing an electronic report" to the extent that it is done in claims 8, 13, complete with an "icon for viewing the transactional data" is deemed a significant-enough structural limitation to define over more basic access arrangements such as those seen in the art of record.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond J. Bayerl whose telephone number is (571) 272-4045. The examiner can normally be reached on M - Th from 9:00 AM to 4:00 PM ET.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca, can be reached on (571) 272-4048. All patent application

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related correspondence transmitted by FAX **must be directed** to the central FAX number (571) 273-8300.

12. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.



RAYMOND J. BAYERL  
PRIMARY EXAMINER  
ART UNIT 2173

19 October 2005



# REPLACEMENT SHEET

CLIENT-DVICE

DATA  
ACCESS  
SYSTEM

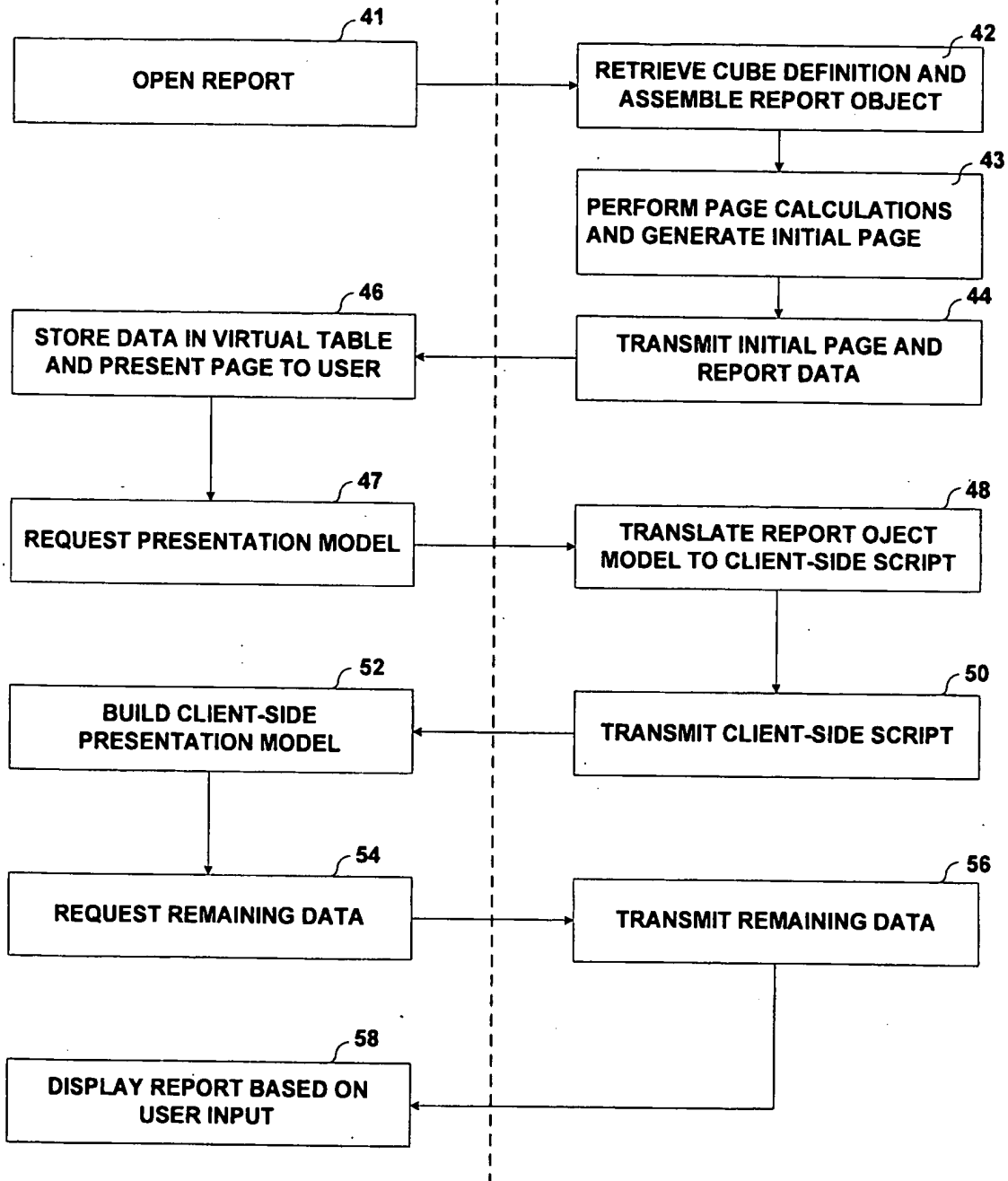


FIG. 7

# REPLACEMENT SHEET

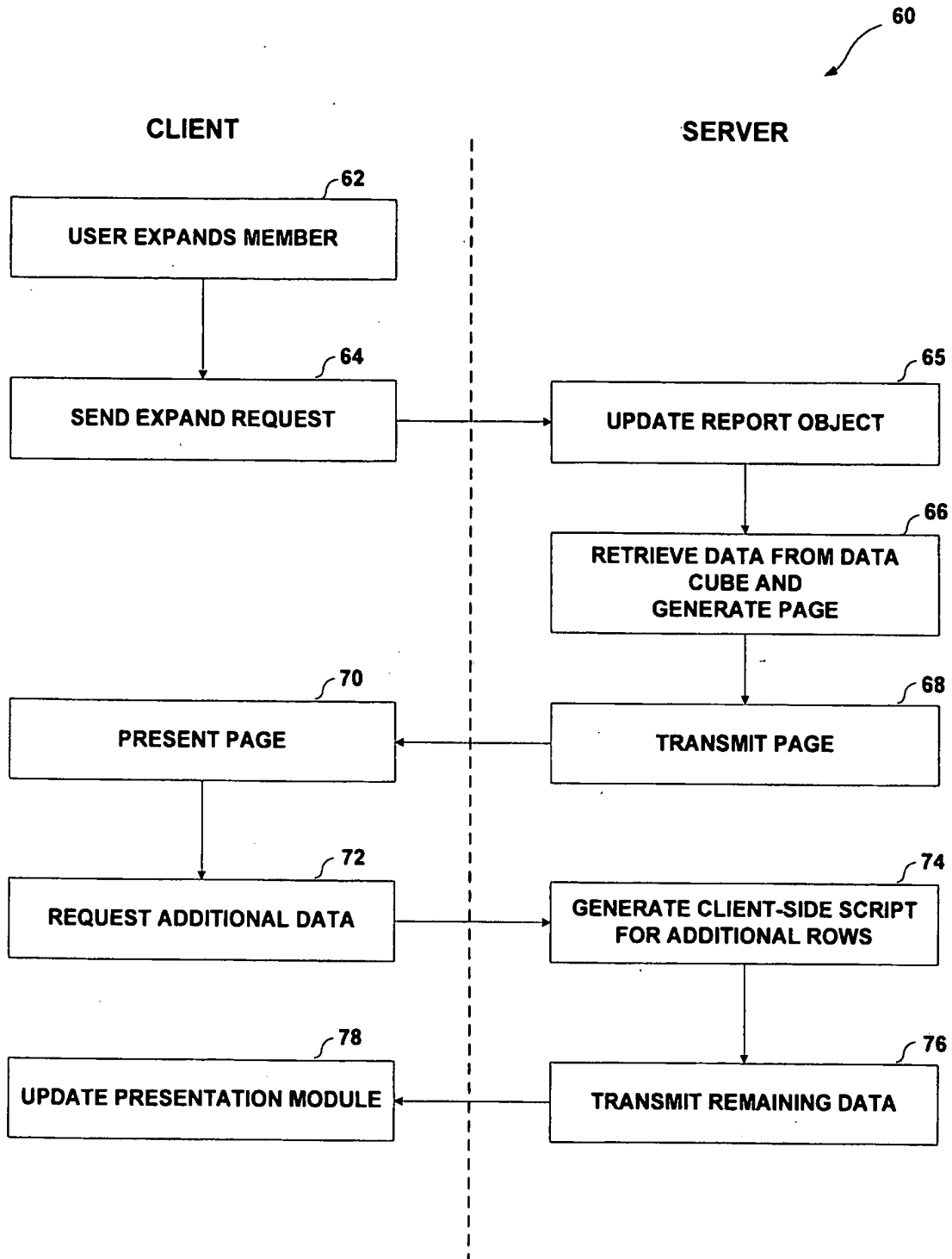
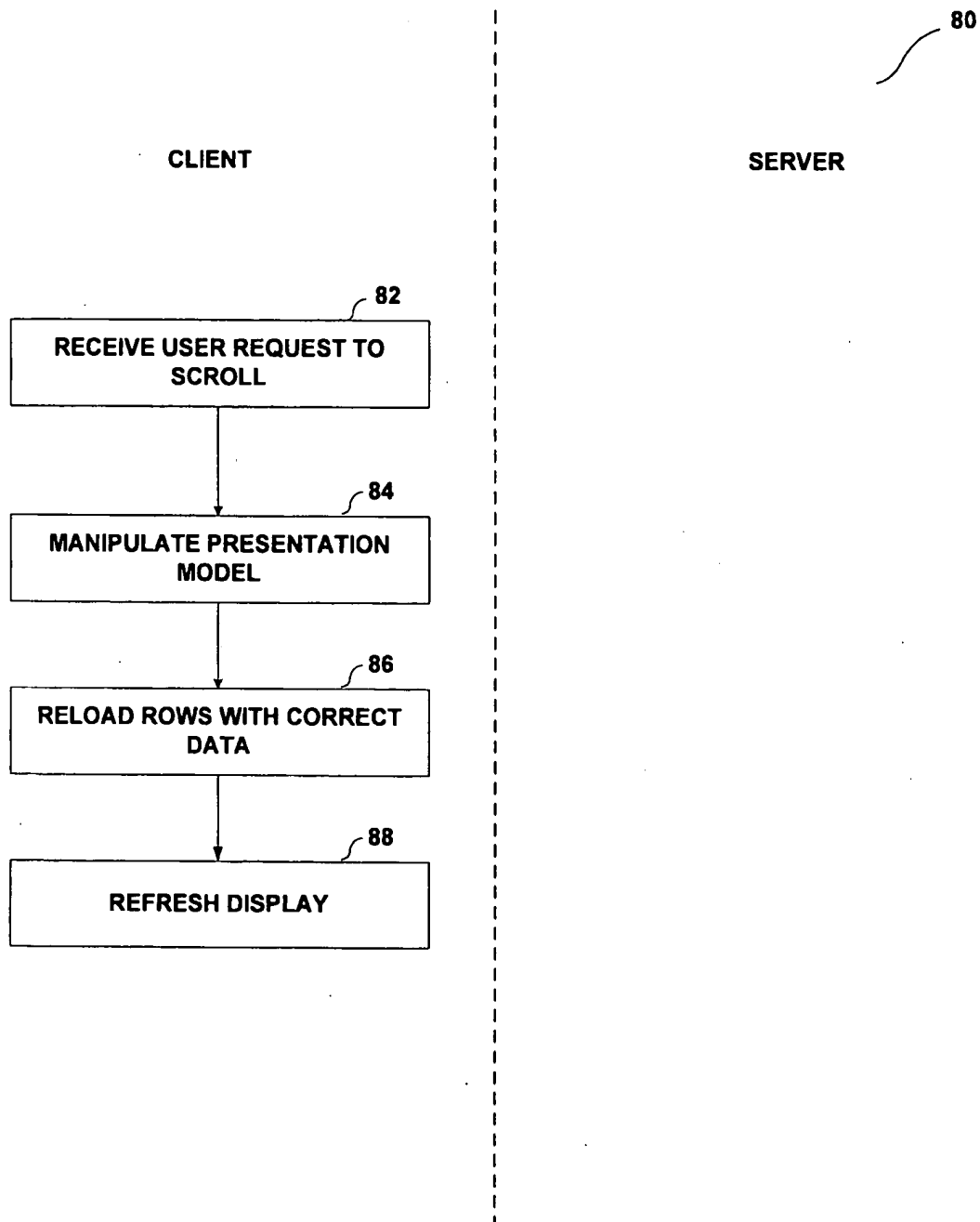


FIG. 8

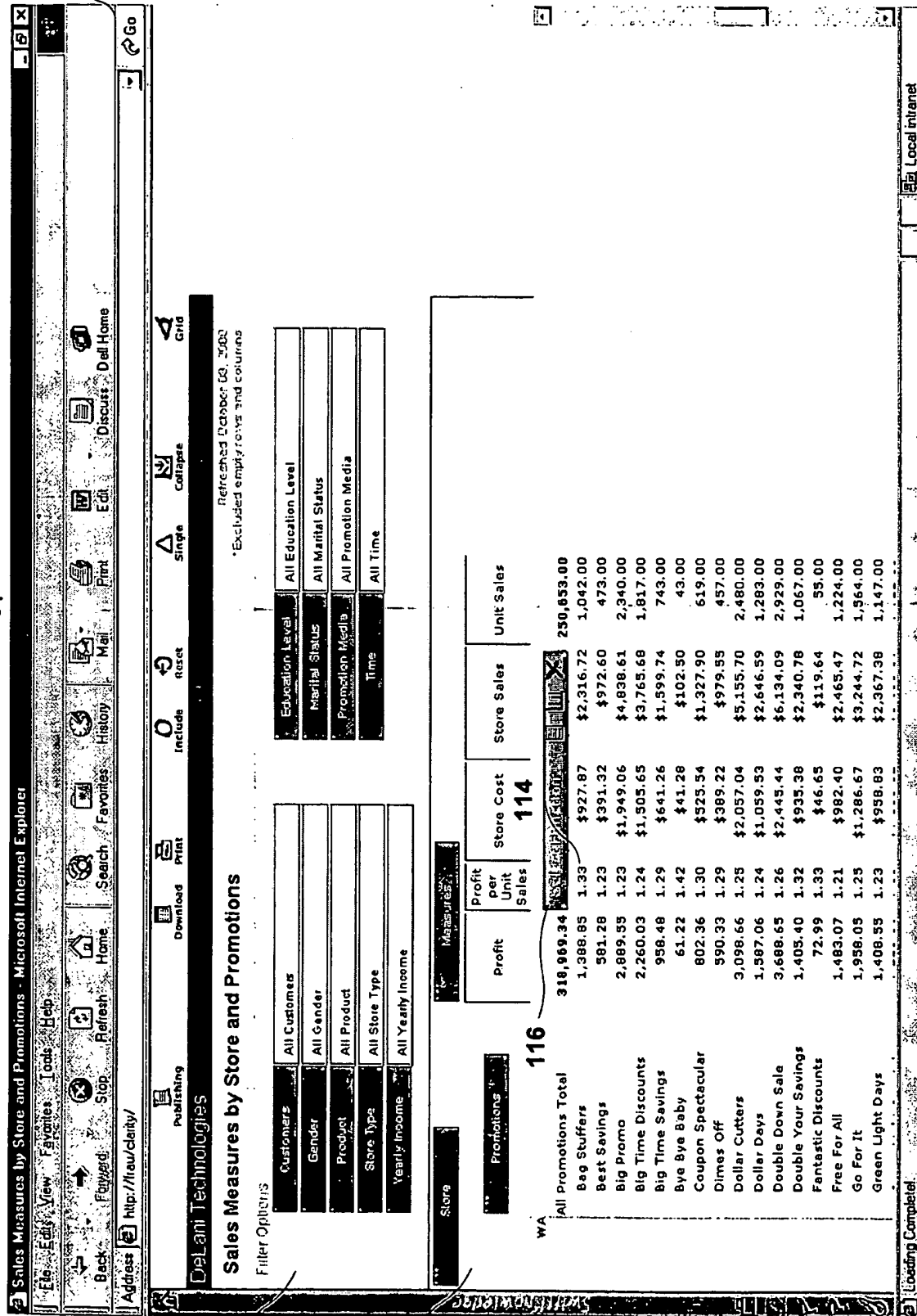
# REPLACEMENT SHEET



**FIG. 9**

# REPLACEMENT SHEET

Approved  
19 Oct 2005





Approved  
RB  
19 Oct 2005

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Sales Transactions for Profit per Unit Sales by WA and Bag Stuffers..... - Microsoft Internet Explorer											
Sales Transactions for Profit per Unit Sales by WA and Bag Stuffers..... Preview first 12 of 2478 rows											
	store_id	store_type	region_id	store_name	store_number	store_street_address	store_city	store_state	store_postal_code	store	
1	2	Small Grocery	78	Store 2	2 5203	Catanzaro Way	Bellingham	WA	55555		
2	2	Small Grocery	78	Store 2	2 5203	Catanzaro Way	Bellingham	WA	55555		
3	2	Small Grocery	78	Store 2	2 5203	Catanzaro Way	Bellingham	WA	55555		
4	2	Small Grocery	78	Store 2	2 5203	Catanzaro Way	Bellingham	WA	55555		
5	2	Small Grocery	78	Store 2	2 5203	Catanzaro Way	Bellingham	WA	55555		
6	2	Small Grocery	78	Store 2	2 5203	Catanzaro Way	Bellingham	WA	55555		
7	2	Small Grocery	78	Store 2	2 5203	Catanzaro Way	Bellingham	WA	55555		
8	2	Small Grocery	78	Store 2	2 5203	Catanzaro Way	Bellingham	WA	55555		
9	2	Small Grocery	78	Store 2	2 5203	Catanzaro Way	Bellingham	WA	55555		
10	2	Small Grocery	78	Store 2	2 5203	Catanzaro Way	Bellingham	WA	55555		
11	2	Small Grocery	78	Store 2	2 5203	Catanzaro Way	Bellingham	WA	55555		
12	2	Small Grocery	78	Store 2	2 5203	Catanzaro Way	Bellingham	WA	55555		

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FIG. 27

# REPLACEMENT SHEET

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Approved  
RB  
19 Oct 2005

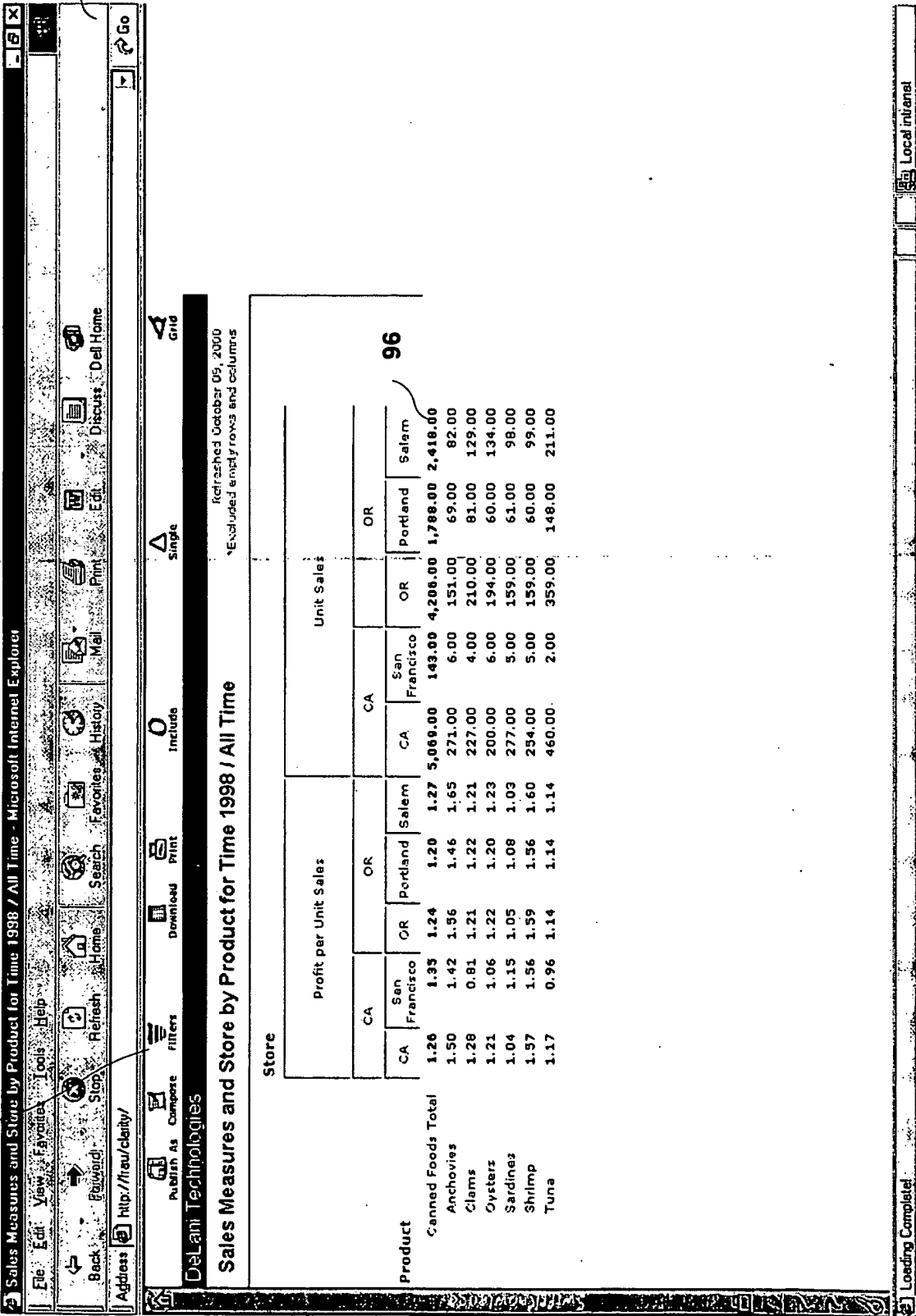


FIG. 29